

# The Fly-By

# A Quarterly Publication of the **Southwest Region**

January, 2018



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The Fly-By is published quarterly on the first month of each quarter.

Deadline for submissions are:

1Q - 20 December

2Q - 20 March

3Q - 20 June

4Q - 20 September

**Text** may be submitted in the body of an e-mail (preferred) or as a document attached to an e-mail (a .txt or Word .doc/docx, or, if written in another word processor, saved as an .RTF).

Images in JPG format, un-retouched, un-cropped, and at least 1200 x 900 pixels, sent as attachments, never embedded in the document.

**Credits:** In all cases, please give full grade, name and unit of assignment of

- The article's author,
- Photographer, and
- Anyone in the article or appearing in photos.

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Send submissions to the Editor at:

awoodgate@austin.rr.com

Message size limit: 20 MB

#### SWR Commander's Corner

Happy New Year Southwest Region!

I hope everyone had a great Holiday Season with family and friends, and is now ready for new CAP adventures and challenges in 2018.

I am confident that everyone has seen Maj. Gen. Mark Smith's priorities for moving Civil Air Patrol into the future. One of those priorities is professionalism.

I want to emphasize one specific aspect of professionalism, which is safety. I have some concerns that we are not taking mishap reporting as seriously as we need to. The entire purpose of reporting a mishap is to prevent something bad that happened today from happening to someone else in the future. How could anyone think that this is not important?

I am concerned that we are not taking risk management seriously. In many cases, the people who plan events do indeed conduct a risk analysis well in advance of the activity. However, conditions change, and there is no follow-on analysis or briefing about new risks. Risk analysis is an on-going activity, and needs to be part of our mind-set at all times. Supervisors need to evaluate unanticipated risks as they emerge, and implement appropriate protective actions in real time.

My New Year's resolution is to ensure everyone's safety as we perform our important Missions for America. But I cannot do this by myself. I need everyone to be engaged in our safety program. That is the only way it will work.

Please join me in resolving to consider safety during every activity, and at all times.

**Col. Joe R. Smith, CAP** Southwest Region Commander

#### Safety is Priority One

Please read the latest issue of The Safety Beacon for timely, seasonal advice at <a href="http://members.gocivilairpatrol.com/safety/">http://members.gocivilairpatrol.com/safety/</a>

Have you taken the *Operational Risk Management* Basic, Intermediate and Advanced online courses? Please visit: http://www.capmembers.com/safety/safety\_education/

- Safety must be on every CAP member's mind, at all times.
- Before engaging in any CAP activity, a safety briefing must be conducted.
- Don't miss the Safety Specialty Track training posted at http://www.capmembers.com/safety/safety-newsletters-2248/
- Safety is our Number One Priority.

#### How to Submit News Items for this Newsletter

#### Which Articles Are Best?

Ideally, articles should deal with a wing-wide event, preferably conducted in conjunction or coordinated with another wing (or better yet across regions).

Individual articles dealing with a subject that is of interest to a broad audience qualify as well.

Articles bylined by cadets, especially when the subject is of interest to a broad audience, are also welcome.

#### Do I Submit Photos?

Articles with no photos may not be selected for publication. Do not embed images in a Word document. Instead, send in the original, un-retouched, full-size digital photos as attachments.

#### If You Have Article Ideas or Suggestions

If you have an article in mind but are not sure whether it would be acceptable, you need some guidance in writing it, or you would like to comment on the material published here, please feel free to contact the editor: <a href="mailto:awoodgate@austin.rr.com">awoodgate@austin.rr.com</a>.

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#### How to Progress in the PA Specialty Track...

#### ...when your squadron is isolated, and you cannot find a mentor

It is not unusual for a CAP squadron PAO to be so distant from other squadrons that establishing easy interaction with other PAOs is difficult or impossible.

It can also be the case that a new PAO needs to start from scratch, but there is no one in the squadron who is PA-qualified.

It is also possible that a PAO who wants to progress beyond the Technician level cannot find a mentor who is qualified Master or higher.

Should you be in need of mentoring, and cannot find someone who is qualified in your wing, feel free to contact the Southwest Region Public Affairs Team. We can arrange for this to happen for both senior members and interested cadets.



**Top:** In flight, (L-R) CAP National Commander Maj. Gen. Mark E. Smith, Cadet Col. Jodie Gawthorp and balloon pilots Lt. Col. William R. Fitzpatrick and Maj. Jessica Makin, on Smith's inaugural flight as National Commander. (Selfie photo: Cadet Col. Jodie Gawthorp, CAP)

# CAP National Commander and New Mexico Wing Commander Bookend Rides at Balloon Fiesta

by Lt. Col. Jay T. Tourtel, CAP, New Mexico Wing

ALBUQUERQUE, N.M. – During the week of Oct. 7-14, 2017, in a first for Civil Air Patrol, CAP's Nationa Commander Maj. Gen. Mark E. Smith became the first national commander to ride in New Mexico Wing's hot-air balloon *Integrity*, at the 46th Annual Albuquerque International Balloon Fiesta, at the Balloon Fiesta Park in Albuquerque.

Smith participated in the opening Mass Ascension on the Fiesta's first day, Oct. 7, 2017, accompanied by the balloon crew and Cadet Col. Jodie Gawthorp of CAP's Indiana Wing.



**Above**: In the gondola, (L-R) Lt. Col. William R. Fitzpatrick, Maj. Jessica Makin, and New Mexico Wing Commander Col. Mike Lee about to rise in the final Mass Ascension of the Fiesta. On the ground, Cadet Lt. Col. Destiny Maurer holds the gondola. (*Photo: Lt. Col. Dean M. Klassy Sr., CAP*)

"I was pleased to fly with the New Mexico Wing's hot air balloon team," said Smith. "The opportunity to fly during the Albuquerque Balloon Fiesta on its morning Mass Ascension of 600-plus balloons was exciting. However, even better than the beauty of the flight was the professionalism of the New Mexico wing's crew. Led by pilots Lt. Col. Fitzpatrick and Maj. Makin, several cadets and senior members ensured that the launch, flight and recovery of the hot air balloon *Integrity* was conducted flawlessly. Well done!"

The historic ride took place a little more than a month into Smith's tenure as national commander. He was appointed to the position on Sept. 2, 2017, after having served as the New Mexico Wing commander from 2011 to 2015, and as commander of Southwest Region – which includes the states of Arizona, Arkansas, Louisiana, New Mexico, Oklahoma and Texas – from 2015 to 2017.

The Balloon Fiesta started in 1972, with a small gathering of 13 balloons at the parking lot of Albuquerque's Coronado Mall. Since 1972, the number of balloons has averaged 600, with as many as 1,000 balloons that were registered in 2000.



**Above:** New Mexico Wing's hot-air balloon *Integrity,* in flight at the Albuquerque International Balloon Fiesta. (*Photo: Lt. Col. Dean M. Klassy Sr., CAP*)

On the Fiesta's closing day, New Mexico Wing Commander Col. Mike Lee, who had succeeded Smith as New Mexico Wing commander, participated in the final Mass Ascension. "It was a pleasure to fly the national commander in *Integrity*, and to expand our reach beyond New Mexico Wing," said Lee.



**Top:** Arizona Wing members pose with their USAF hosts (far right in flight suits) in front of an A-10 Thunderbolt II. (All photos: Maj. Mark Maciha, CAP)

### Arizona Wing Cadets Visit Tucson for the 2017 Annual Aerospace Activity

by Capt. Angelo Rossetti, CAP, Arizona Wing

TUCSON, Ariz. – For the past several years, the Arizona Wing Aerospace Team has organized and executed a wing-wide aerospace activity. This year, the event was held in Tucson, with tours of the Pima Air and Space Museum and the Davis-Monthan Air Force Base. Squadrons throughout the wing were invited to participate in an overnight event on the weekend of November 18-19, 2017. Fifty cadets and 11 senior members participated in this activity.

Planning for the event started in July by contacting Curator of Education Mina Stafford at Pima Air and Space Museum, to set up the tours and a possible overnight stay at the museum. Stafford worked with the Wing to arrange the museum tour at no cost, and provided USAF Maj. Diane Mangelsdorf at Davis-Monthan as the contact for the tour on base.

Unfortunately, the museum was unable to accommodate any groups for overnight stays. It was then decided to expand the event to include a cadet activity component with Arizona Wing Cadet Activities Officer Capt. Joanna Moseley, who found appropriate cadet lodging for Saturday night, and arranged for transportation during the event.

The activity started on Saturday at 11:30 a.m. at the Pima Air & Space Museum, that is the third-largest non-government-funded aviation and space museum in the world. It features more than 350 historical aircraft, ranging from a Wright Flyer to a Boeing 787 Dreamliner, spread over 80 acres. The museum opened in May 1976 and, in addition to its vast outdoor display of historical aircraft, it has six indoor exhibit hangars, three of which are dedicated to WWII. It attracts more than 170,000 visitors annually, and has its own aircraft restoration shop. CAP participants were broken into groups of eight cadets with a senior member. Each group received an overview of the museum and proceeded on a self-guided tour and scavenger hunt. Museum docents were on hand to discuss the different aircraft and artifacts on display, as well as answer questions.



**Above:** USAF Maj. Diane Mangelsdorf (left) watches as USAF Lt. Col. Martin Meyer (center) speaks with CAP cadets during a guided tour of the Aerospace Maintenance and Regeneration Group Facility (*"The Boneyard"*) at Davis-Monthan Air Force Base in Tucson.

At closing time, the cadets were bused to Ryan Airfield, where a group of hangars donated by Tim Amalong, owner of Velocity Air, were made available overnight. Upon arrival at 6 p.m., cadets set up their sleeping areas, and thanks to Community Engagement Manager Myra Curtis, of the city of Buckeye, Ariz., ten corn-hole game boards were on loan for the cadets to engage in competition. After dinner, the evening ended with a movie, then lights out at 10 p.m.

Sunday started with reveille at 6 a.m. Cadets were served breakfast, then packed, and cleaned the hangars. After a few more tosses of the bean bags, the bus arrived at 8:15 to transport them to the Davis-Monthan AFB Visitor Center Gate. The group met with USAF Maj. Mangelsdorf and Lt. Col. Martin Meyer, who guided the visit to the base. Both Mangelsdorf and Meyer are active duty Air Force pilots currently stationed at Davis-Monthan.

After clearing the gate, the bus headed to the Aerospace Maintenance and Regeneration Group (AMARG). On the way to the AMARG, Meyer reviewed the mission of Davis-Monthan in the Air Force and its importance to the local community. The AMARG is home to the world's

largest airplane "boneyard." The 2,600-acre facility began its role in the storage of military aircraft after World War II. The area's low humidity (in the 10-20% range), scant rainfall of 11 inches annually, hard alkaline soil, and 2,550 feet elevation, allow the aircraft to be naturally preserved either for cannibalization or possible reuse. Also, the desert geology allows aircraft to be moved around without needing to pave the storage areas.

The AMARG tour included multiple stops where cadets were encouraged to walk around and look closely at the aircraft on display. Both guides went to great lengths to explain the past role of the aircraft at each stop and its possible future use. They added to the presentation by discussing their personal experiences over their more than 20 years of service. The last stop on the tour was the F-16 reuse facility, where these jets are being repurposed into unmanned aircraft to be used in training fighter pilots. Cadets got a close look at several F-16s in various stages of restoration; Meyer spoke of his role as a test pilot in this process.

The day ended at 1 p.m. at the Davis-Monthan Visitor Gate, where the cadets were given a snack lunch and dismissed to their respective squadron leaders for their trip home.

Feedback about the weekend from the cadets and senior members was extremely positive. Comments included very favorable reviews of both Maj. Mangelsdorf and Lt Col Meyer's presentations, the extensive access to the Boneyard Facility, the Pima Air & Space Museum visit, and the good fun they enjoyed at the Ryan Field Hangar overnight.

**Editor's Note:** Capt. Angelo Rossetti is the Arizona Wing director of aerospace education; Maj. Mark Maciha is a member of the Dan Kenney Composite Squadron 201, Flagstaff, Ariz

**Below:** At the F-16 reuse facility, USAF Lt. Col. Meyer showed the cadets an F-16 that is being repurposed into an unmanned aircraft to be used in fighter pilot training.





**Top:** New Mexico Wing Commander Col. Mike Lee briefs members on the state of the Wing. (*Photo: Lt. Col. Jay T. Tourtel, CAP*)

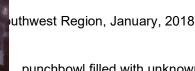
# National Commander, Wing Commander, Explosion and Astronaut Highlight New Mexico Wing Conference

by Lt. Col. Jay T. Tourtel, CAP, New Mexico Wing

SOCORRO, N.M. – On the weekend of Oct. 27-29, 2017, the Civil Air Patrol's national commander, the New Mexico Wing commander, an explosion and an astronaut combined to highlight the New Mexico Wing Conference, that took place at the Macey Conference Center of the New Mexico Institute of Mining and Technology, informally known as New Mexico Tech.

The festivities began on the evening of Oct. 27, with a Cadet Ball at the nearby Best Western Convention Annex. The Ball is an opportunity for cadets to get to know one another, and to experience the protocols associated with formal dining and the Air Force dining-out, which serves as the model for the Cadet Ball.

Cadets and senior members were treated to the attendance of CAP's National Commander Maj. Gen. Mark E. Smith, who was good-natured enough to share a trip to the Grog Bowl (a





punchbowl filled with unknown but harmless nonalcoholic ingredients) for perceived infractions of the Rules of the Mess. The ball concluded at about 10:30 p.m.

**Left:** Cadet Master Sgt. Shelby Webb of Albuquerque Heights "Spirit" Composite Squadron shares a toast with National Commander Maj. Gen. Mark Smith at the New Mexico Wing Conference's Cadet Ball. (*Photo: Lt. Col. Michael E. Eckert, CAP*)

The Saturday activities began with the General Session, which was called to order by Lt. Col. David G. Finley, Socorro Composite Squadron's public affairs officer. As the hosting unit, Socorro's Cadet Color Guard posted the colors for the day's events. Following the invocation and Pledge of Allegiance, New Mexico Wing Director of Safety Lt. Col. Doug Weitzel gave his Operational Risk Safety Briefing (ORSB).

The first speaker was Maj. Gen. Smith who, in his previous roles as both New Mexico Wing commander and Southwest Region commander, was no stranger to the New Mexico Wing Conference. Now the national commander, he briefed wing members on how CAP is doing nationwide.

He reiterated his command philosophy, which he mentioned following his appointment as national commander on Sept. 2, 2017: "One Civil Air Patrol, excelling in service to our nation and our members."

**Right:** Former astronaut, geologist, and former U.S. Senator Harrison "Jack" Schmitt receives a Zia Sun Symbol, crafted by New Mexico Tech, from New Mexico Wing Commander Col. Mike Lee. (*Photo: Lt. Col. Jay T. Tourtel, CAP*)

He praised CAP's response, and especially that of New Mexico Wing, after the three hurricanes that began on his watch – Harvey, Irma and Maria – and how the organization pulled together to achieve a common goal. For Hurricane Harvey alone, 626 volunteers from 37 wings flew 626 sorties, for a combined total of 1,839 hours, to provide 75,973 aerial photographs, thus aiding local authorities in assessing the damage left in the storm's wake.

Smith also praised CAP's cell phone and radar forensics teams, which were able to pinpoint lost aircraft or individuals. So far this

year, 103 lives have been saved through cell phone forensics alone.

Paying tribute to the 75th anniversary of the Civil Air Patrol Cadet Program – that officially turned 75 on Oct. 1, 2017, – he said, "I happen to believe that the Cadet Program is the single best youth-development program in the nation."

He also stressed CAP's NCO program as a way for prior-service noncommissioned officers to mentor both senior members and cadets.



**Above:** Attendees pose for a group photo at the site of an explosives demonstration that had been provided by New Mexico Tech. (*Photo: Maj. Dennis Hunter, CAP*)

For Smith, new member recruitment and retention remains a priority. He said that CAP's focus should be on effective leadership, a healthy squadron climate and an inclusive, welcoming atmosphere.

Addressing the issue of member retention, Smith said that he wanted all CAP members to succeed. "It's important for our members to take care of each other," he remarked. If members believe they are doing something meaningful, then they will be motivated to stay.

New Mexico Wing Commander Col. Mike Lee then spoke on the state of the Wing. Echoing Smith's point, Lee stated that recruiting is still a major concern for the Wing, although it has made positive strides. As of the end of the fiscal year, Sept. 30, 2017, one of the Wing's newest units, the Carlos F. Vigil Middle School Cadet Squadron, gained a record number of 74 cadets.

Lee said that effective retention is part of a quality unit, and recognized five squadrons that earned Civil Air Patrol's Quality Cadet Unit Award: Los Alamos Composite Squadron, Eagle Cadet Squadron, Santa Fe Composite Squadron, Albuquerque Heights Composite Squadron and LBJ Middle School Cadet Squadron.

He praised the Wing for exceeding its projected number of orientation powered flights: 248 out of a projected 210 for 2017. The Wing also had 419 glider sorties for 2017, ranking eighth in the nation.

Lee also praised his staff for their hard work during its biannual Operations Evaluation (OPSEVAL), held Aug. 11-12, 2017, and for which the wing merited an overall rating of Effective.

After a Q&A session with Maj. Gen. Smith, the General Session was dismissed, and attendees were bused to the Energetic Materials Research and Testing Center (EMRTC) test site, adjacent to the New Mexico Tech main campus.

Attendees witnessed an explosives demonstration from a bunker, two miles away from the actual test site. Although for security reasons attendees were not allowed to take pictures, Socorro Composite Squadron Commander Maj. Dennis Hunter, an employee of EMRTC, did take a group photo of attendees at the site of the detonation's aftermath.

Following the afternoon breakout sessions, the guest speaker for the conference banquet was Dr. Harrison "Jack" Schmitt, the Apollo 17 lunar module commander, and one of the last men to walk on the moon. Although he also served as a United States Senator from New Mexico from 1977 to 1983, he spoke about his career as an astronaut. From 1969 to 1972, the Apollo astronauts brought home 850 pounds of moon rocks, which are still being studied.

Schmitt said to be hopeful that, over the next two decades, the United States would focus on a manned mission to Mars. The technology and the knowledge base are there, with the operational experience from the Apollo missions and a pool of young, skilled engineers.

"Before we commit to another Mars mission, let's take another walk on the moon," he said, echoing the words of NASA pioneer Wernher von Braun, who said, "I have learned to use the word 'impossible' with great caution."



**Top:** (L-R) Albuquerque Heights "Spirit" Composite Squadron founding Commander Lt. Col. Beverly A. Vito, Spirit Squadron alumnus and National Commander Maj. Gen. Mark E. Smith, Lt. Col. Michael E. Eckert, and current Squadron Commander Capt. Mary A. Fox. Not pictured: Maj. Lloyd J. Voights. (*Photo: SM Jonathan Fox. CAP*)

#### Four Commanders Reunite at Spirit Composite Squadron Awards Dinner

by Lt. Col. Jay T. Tourtel, CAP, New Mexico Wing

ALBUQUERQUE, N.M. – On Dec. 21, 2017, Albuquerque Heights "Spirit" Composite Squadron hosted its annual Awards Dinner at the squadron's meeting place, the Heights First Church of the Nazarene in Albuquerque. This year, not only did the squadron recognize its cadets and senior members for outstanding duty performance, but it also hosted an unexpected and impromptu reunion of the most recent four CAP members who commanded the squadron.

Lt. Col. Beverly A. Vito was the founding squadron commander, from the time the unit was chartered in July 2005 to January 2006. She also commanded the squadron from March 2008 to May 2012.

Perhaps the most famous former squadron commander is Civil Air Patrol's National Commander Maj. Gen. Mark E. Smith. He commanded the squadron from January 2006 to March 2008. In 2009, he was appointed New Mexico Wing Vice Commander under Col. Richard F. "Ric" Himebrook, and served as New Mexico Wing Commander from June 2011 to June 2015. He took over as Southwest Region Commander in June 2015, a position he held until he was appointed National Commander in September 2017.

Lt. Col. Michael E. Eckert commanded the squadron from May 2012 to March 2015. It was under Eckert's leadership that the squadron earned the Squadron of Distinction Award for 2013, ranking as the top squadron in the nation among over 1,500 units.

Unavailable for the reunion was Maj. Lloyd J. Voights, who commanded the squadron from March 2015 to March 2016. The current commander, Capt. Mary A. Fox, has commanded the squadron since March 2016.

Fox said, "It was an honor to stand amidst the strength that built Spirit Squadron. I am fortunate to have access to the experiences of these previous commanders." She concluded, "What's even more amazing is that one of our prior commander, General Mark Smith, is now the National Commander of Civil Air Patrol. I can only hope to have the perseverance and fortitude they had as I attempt to continue their legacy with Spirit Squadron."



**Top:** In the Operations Center, (L-R) Planning Section Chief Maj. Vic LaSala of Verde Valley Composite Squadron 205; Resource Unit Leader Maj. Dave Roden of Falcon Composite Squadron 305; Incident Commander Maj. John Schofield of Arizona Wing Operations Support Group; Situation Unit Leader Capt. Jim Space of Falcon Composite Squadron 305; and Arizona Wing Area Commander Col. Martha Morris, Arizona Wing commander. (*Photos: Capt. Margot Myers, CAP*)

### Arizona Wing Earns Outstanding Rating in Biennial Evaluated Exercise

by Capt. Margot Myers, CAP, Arizona Wing

MESA, Ariz. – During the week of Oct. 30-Nov. 4, 2017, for the third time in a row, the Arizona Wing earned an "outstanding" rating in its biennial Evaluated Exercise (EvalEx). This event is an opportunity for the U.S. Air Force to review and assess the effectiveness of each Civil Air Patrol wing. Sixteen Air Force representatives evaluated all aspects of the Wing's operations and support activities, from aircrews and ground teams to logistics, safety, and communications. USAF Southwest Region Liaison Commander Lt. Col. Jordan Lee led the Air Force evaluation team.

"I am proud of everyone's dedication and commitment, and I appreciate the time invested to make [the EvalEx] such a great success," wrote Arizona Wing Commander Col. Martha Morris in an email to senior members across the Wing. "To get an outstanding twice in a row (in 2013 and 2015) was remarkable. A 'three-peat' is pretty much unheard-of."

Tasks were entered in the Web Management Information Reporting System (WMIRS) at the beginning of the week and the first two sorties were flown on Nov. 1, 2017. The scenario started with a simulated number of meteorites striking locations across the state. Four aerial photography sorties were flown on Nov. 2 and nine more on Nov. 3. The flights provided hundreds of high-resolution photographs of rivers, power plants, and other infrastructure, such as dams and railroad tracks.

Some tasks in far-flung locations, for example the Hoover Dam (near Las Vegas) and Page (at Arizona's northern border), were "virtually" handed off to Civil Air Patrol squadrons in the California, Nevada, New Mexico, and Utah Wings, to support Arizona Wing's response to the widespread effects of the simulated meteor strikes. At the in-brief on the morning of Saturday, Nov. 4, Lt. Col. Lee said that he was pleased that Arizona Wing had completed all aerial photography tasks before the EvalEx had ended.

On Saturday, everyone participated in a full day of simulated search and rescue mission operations. The day began with a search for a Rockwell Commander airplane that had been reported overdue on a flight from Winslow to Sells, Ariz. Four CAP planes flew along the plane's expected route of flight, searching for the missing plane and pilot. Radar tracking and cellphone forensics tools also were used in the search. There was an added task (known as an "inject") to search for two missing Arizona State University graduate students somewhere along Highway 87, between Mesa and Payson, who were located by a ground team. A requested transport flight, to take a NASA official to Flagstaff to assess damage to a telescope, got much more interesting when the plane had a simulated low oil pressure alert, resulting in an unplanned landing in Payson. In addition, there was an emergency locator transmitter search, a request to get video of "suspicious persons" at the Goodyear airport, and another aerial video request to assess whether forest fire damage was affecting a herd of wild horses near Gila Bend, Ariz.

CAP Maj. John Schofield served as the incident commander, overseeing activities in three divisions located at Falcon Field in Mesa, Deer Valley Airport in Phoenix, and Tucson International Airport. In a simulated media advisory, Schofield noted that, "The Arizona Wing has provided hundreds of photos and videos of dams, bridges, roads, and other infrastructure, to allow the Federal Emergency Management Agency and other state and local agencies to assess the level of damage from meteorites that struck across the state. Our first priority is always life safety, so the search for the missing airplane, as well as another search for two missing ASU students, are getting our full attention," Schofield said.

A total of 159 CAP professional volunteers participated in this mission, including 11 airplanes, 23 Ground Team members (plus four K-9s), 33 aircrew members, 42 personnel working in the Incident Command Post, and six cadets.

During the end-of-day debriefing on Saturday, various AF evaluation team members discussed their findings and announced the rating given to each unit.

Lt. Col. Lee summed up the evaluation by saying, "It's not just the team you have developed;

it's the depth of your 'bench.' If you lose a position, you have people who can step up to fill it. It's a very well-oiled machine that you have here in the Arizona Wing."

**Right:** Ground Branch Operations Director Maj. Dallas Lane, Arizona Wing (in blue CAP flight uniform) briefs ground team members as USAF evaluators sit in.





**Left**: Maj. Craig Stapleton, CAP accepts his Southwest Region Aerospace Education Teacher of the Year Award (2017). (*Photos: Sr. Master MSgt. Chuck Grosvenor, CAP*)

**Below:** SFHS NJROTC 2017 Spring Aerospace Encampment aboard the USS Midway (2017).

#### Southwest Region Aerospace Education Teacher of the Year

by Sr. Master Sgt. Chuck Grosvenor, CAP, Southwest Region

SANTA FE, N.M. – On Oct. 30, 2017, Taos Composite Squadron Commander Maj. Craig A. Stapleton was presented the Southwest Region (SWR) Aerospace Education Teacher of the Year. The award had been announced at the 2017 National and Southwest Region (SWR) Conference in San Antonio, Texas, in early September, but Stapleton had been unable to attend. Senior Master Sgt. Chuck Grosvenor, SWR command NCO, representing the SWR commander, presented the award.

A former naval flight officer, Maj. Stapleton retired from the U.S. Navy in 2011, and moved to New Mexico in order to begin a second career as the Senior Naval Science Instructor for the Naval

Junior ROTC program at Santa Fe High School. Soon thereafter, he joined the Civil Air Patrol (CAP), and in 2014 was assigned as the Taos Composite Squadron's deputy commander for seniors.





**Above**: Northern New Mexico, balloon altitude is about 100,000 feet, just prior to balloon burst and package descent back to earth (2017). (*Photo: Santa Fe High School Naval Junior ROTC Program, Aerospace Education class students*)

**Below**: Maj. Craig Stapleton Senior Naval Science Instructor at work explaining model rocket design to an NJROTC student (2017). (*Photo: Sr. Master Sgt. Chuck Grosvenor, CAP*)

Two months later, Craig assumed command of the squadron and reinvigorated the cadet program. In addition to his duties as unit commander, he has also qualified as a CAP mission pilot, instructor pilot and check pilot. Making aerospace education a high priority, he actively keeps the squadron's cadets and senior members involved in this major discipline.

Under his leadership, and because of his emphasis in aerospace education, in 2017 the squadron has achieved a growth of 75% in cadet membership and 18% in senior membe enrollment.

As a teacher for the Santa Fe school system, Maj. Stapleton has developed and implemented several programs of aerospace and aviation education, such as the CAP model rocket and balloon programs. His students are actively engaged and enthusiastic about upper atmosphere exploration, as well as both rocket and balloon launches.

During the solar eclipse earlier in 2017, his students launched a balloon from south of the Santa Fe Regional Airport in an attempt to photograph the event from above a cloud layer that had blanketed the Santa Fe area. They tracked the balloon's progress to over 100,000 feet altitude, and its path moving north and east to the Sangre De Cristo mountains, then turning west, flying over the Los Alamos area before the balloon burst and the flight terminated.

Recovery of the test package took several days, because the science package and cameras

parachuted into an area around the Valles Caldera National Preserve, west of Los Alamos, and vehicular access was limited. Therefore, recovery took a lot of hiking for teacher and students. Although the onboard cameras could not catch a picture of the solar event, the flight was deemed a success from an aerospace educational perspective.

His leadership and innovative teaching activities were key in selecting him as a recipient of the Southwest Region Aerospace Education Teacher of the Year Award.



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**Top:** (L-R) Lafayette Composite Squadron Commander Lt. Col. Jude Poirrier, Louisiana Wing Commander Col. Thomas "Doc" Barnard, Cadet Captain Evan Norman, and Congressman Clay Higgins (Louisiana District 3) who is presenting Norman with the Civil Air Patrol's Amelia Earhart Award. (*Photo: Louisiana Wing Staff*)

#### Congressman Clay Higgins Presents Award to Civil Air Patrol Cadet

by Lt. Col. Amos A. Plante, CAP, Louisiana Wing

LAFAYETTE, La. – On Oct. 15, 2017, Congressman Clay Higgins presented the Civil Air Patrol's Amelia Earhart Award to Cadet Captain Evan J. Norman at a short ceremony held at South Louisiana Community College.

Higgins is a member of the U.S. House of Representatives and represents Louisiana's Third Congressional District. He is a member of several important House committees, including Science and Space Technology, Veterans Affairs, and Homeland Security.

Higgins joined members and cadets of CAP's Louisiana Wing assembled at South Louisiana Community College for a semi-annual, in-residence training academy. He presented the Earhart Award at a mid-day gathering that included Cadet Norman's parents, John and Heidi Norman, and other family members. Col. Thomas Barnard, commander of CAP's Louisiana Wing; Lt. Col. Jude Poirrier, commander of the Lafayette Composite Squadron; and Col. Michael Dubois, director of the Louisiana Wing Training Academy, were also present.

Cadet Norman is a member of the Lafayette Composite Squadron, a unit of CAP's Louisiana Wing. His squadron commander, Col. Poirrier, said, "By his achievements, it is clear that Cadet Norman is destined to be one of tomorrow's leaders."

In order to earn the Earhart Award, Norman had to complete the first eleven of 16 achievements in CAP's cadet program, live up to Earhart's standards of excellence, successfully complete comprehensive leadership and aerospace exams, and pass a rigorous physical fitness test.

Norman has studied Air Force perspectives on leadership, including principles of officership and the responsibilities of command. He has also studied advanced aspects of drill and ceremonies, and participated in a Staff Duty Analysis Program.

Earhart achievers, such as Norman, are looked upon favorably by all U.S. military service academies, especially the U.S. Air Force Academy, where about 10 percent of the cadets in each class are former CAP members.

#### New Mexico Composite Squadron "Goodwills" it Again

by 2nd Lt. Michael R. Saul, CAP, New Mexico Wing

ALBUQUERQUE, N.M. – On Nov. 4, 2017, the Albuquerque Heights "Spirit" Composite Squadron held its second Goodwill fundraiser of the year at its headquarters, the Heights First Church of the Nazarene in Albuquerque. The purpose of the fundraiser was to raise money for the squadron, which goes toward purchasing insignia and supplies for the senior members and cadets.

The squadron accepted donations of gently used items to donate to Goodwill, and received \$50 for every bin that they filled. The November fundraiser filled eight bins for a total of \$400, outpacing last April's fundraiser, when six bins had been filled for a total of \$300.

According to Squadron Commander Capt. Mary A. Fox, members may not find fundraising to be desirable, but it is necessary. "The funds do wonders to keep cadets excited about CAP," she said.

She noted that once the members got into the rhythm of collecting items and filling bins, it turned out to be a great team builder. "Not only did we earn funds but, for five hours, the cadets got to hang out with each other," Fox said. "There was a lot of squadron esprit-decorps going on. We had a great day!"

Fox acknowledged another fringe benefit of the fundraiser, "Perhaps we should encourage fundraising not only as a means of getting funds and recruiting but also as an aid to retention," she concluded.

Participants included Fox, Lt. Col. Beverly A. Vito, and Cadet Airman Basics Kylah Anderson, Morgan Raney, Jessamine Wignall and Derek Williams.

Cadet Airman Basic Jessamine Wignall expresses her feelings over the items collected to raise funds for the squadron. (Photo: Capt. Mary A. Fox, CAP).





Top: A minivan is destroyed by an explosives demonstration at the EMRTC test site. (Photo: Courtesy of New Mexico Tech.)

#### New Mexico Wing Conference Hosts Explosives Demonstration

by Lt. Col. Jay T. Tourtel, CAP, New Mexico Wing

SOCORRO, N.M. – On Oct. 28, 2017, attendees of the New Mexico Wing Conference in Socorro got to witness just how deadly a blast of ammonium nitrate can be. On April 19, 1995, Timothy McVeigh used it to demolish the Alfred P. Murrah Federal Building in Oklahoma City, killing 168 people, 19 of whom were children under the age of six.

Attendees were bused to the Energetic Materials Research and Testing Center (EMRTC) test site, adjacent to the main New Mexico Tech Campus. Socorro Composite Squadron Commander Maj. Dennis Hunter, an employee of EMRTC, explained to attendees what was going to happen.

After hiking uphill to the site of the proposed blast, Hunter showed attendees a late-model minivan filled with ammonium nitrate and fuel oil (ANFO). Hunter explained that EMRTC uses TNT as the standard measure of bombs and explosives, and the ANFO charge to be detonated had 80% of the explosive capacity of TNT.

Attendees were then bused to a double-walled outdoor bunker approximately two miles from the test site, and witnessed the explosion through double-paned safety glass. Hunter counted down from 5 to 1. Attendees saw the blast and then, some two seconds later, felt the shock wave and heard the explosion. After being given the all-clear signal, all were bused back to the blast site. With the exception of the engine block, the rest of the van had been totally destroyed.

According to Socorro Composite Squadron Public Affairs Officer Lt. Col. David Finley, the EMRTC routinely does explosives testing, and has trained thousands of first responders in the use of explosives and antiterrorism techniques.

That evening, attendees received souvenir pictures of the blast at the conference banquet.



**Top:** (L-R) Maj. Mark Warriner and Lt. Col. Kathy Beauford after their return from the FEMA mission to Beaumont, Texas. (*Photo: Anonymous airport employee*)

### Louisiana Wing Aircrew Completes Hurricane Harvey Mission

by Lt. Col. Kathy Beauford, CAP, Louisiana Wing

NEW ORLEANS – On Sept. 30, 2017, a Civil Air Patrol aircrew completed a FEMA Hurricane Harvey assessment and photographic mission, flown over four cities south of Beaumont, Texas. Aircrew members were Maj. Mark Warriner, pilot in charge, and navigator and airborne photographer Lt. Col. Kathy Beauford.

The mission involved photographing Hurricane Harvey damage to the cities of Deweyville, Mauriceville, Pinehurst, Port Arthur, and Nederland, Texas. The photographic part of the mission included taking photographs every 2 seconds for two hours and providing the photographs to FEMA for planning purposes.

Findings included a destroyed trailer park and a burned private home. Also found were miles of flooded homes with damaged property on the side of streets and roads. In the cities imaged, few streets were found without damaged articles stacked on the roadside.



**Top:** Cadets and senior members from Albuquerque Heights "Spirit" Composite Squadron who participated in the wreath-laying ceremony. (L-R) Front Row: Cadet Airmen Derek Williams and Max Wignall, Cadet Airman 1st Class Sean Cuellar-Hatcher, Cadet Airman Basics Morgan Raney, Jessamine Wignall and Kaitlyn Olsen, and Cadet Airman Kathryn Parsons. Back Row: Cadet Senior Master Sgt. Shelby Webb, Lt. Col. Michael E. Eckert, Capt. Mary A. Fox and Lt. Col. Beverly A. Vito. (*Photo: Courtesy of Ms. Lorraine Webb*)

#### New Mexico Squadrons Participate in Wreaths Across America

by Capt. Mary Fox, CAP, New Mexico Wing

SANTA FE, N.M. – On Dec. 16, 2017, seven cadets and three senior members from Albuquerque Heights "Spirit" Composite Squadron participated in the 12th annual Wreaths Across America wreath-laying ceremony at Santa Fe National Cemetery.

Four squadrons represented New Mexico Wing at the event. Santa Fe Composite Squadron was responsible for the color guard, and for escorting Blue Star mothers (who have sons and daughters serving in the military) and Gold Star mothers (whose sons or daughters were killed in action), who placed wreaths honoring the five branches of the armed services – Army Navy, Air Force, Marines and Coast Guard – as well as a wreath honoring prisoners of war and veterans missing in action.

Los Alamos Composite Squadron, with its eight cadets and three senior members, spent nearly two hours laying 18 wreaths at grave-specific sites. West Mesa Composite Squadron, along with its three senior members and five cadets assisted Spirit Squadron with parking, and then went on to lay 19 wreaths at grave-specific sites. Albuquerque Heights Composite Squadron organized individual wreath placements, assisted with parking and with the laying of individual wreaths, including a wreath for former New Mexico Wing Commander Col. Earl Livingston.

At each grave, cadets placed the wreath reverently at the grave, offered a moment of silence, provided a salute of honor, and spoke the veteran's name and rank aloud, because a name spoken aloud is a name not forgotten. The ceremony was a way to provide honor and remembrance for all deceased veterans who, through their sacrifice, earned the freedoms that all Americans enjoy today.



**Top:** Freshman physics students at Pinnacle High School pose for a group photo with (center, L-R) CAP Capts. Margot Myers, Klara Olcott, and Gordon Helm. (*Photo: Mr. Mike Vargas*)

# Arizona Wing Supports High School Disaster Relief Exercise

by Capt. Margot Myers, CAP, Arizona Wing

PHOENIX – On Oct. 5, 2017, at the request of Pinnacle High School physics teacher Mike Vargas, three Arizona Wing members made several presentations. They spoke to freshmen conceptual physics students who were preparing for a disaster relief lab on the following day.

Vargas, who was chosen Arizona Science Teacher of the Year in 2014, is a former Civil Air Patrol member who engages and inspires the students in his freshman physics classes. Even though physics has typically been taught as an advanced science offering for junior or senior students, the Pinnacle High School approach is quite another. "Physics isn't about rote learning," Vargas said. "It teaches you how to think logically and solve problems. We push our students' understanding of their everyday world in a way that is very different from anything they have done in the past."

CAP Capts. Gordon Helm, Margot Myers, and Klara Olcott presented to seven groups of students, from the combined classes of three physics teachers. All students at this Paradise Valley Unified School District high school are required to take conceptual physics as freshmen.



**Above:** CAP's history and its three primary missions were the subject of CAP Capt. Gordon Helm's presentation. (*Photo: Capt. Margot Myers, CAP*)

Helm, who serves as deputy commander for seniors at Deer Valley Composite Squadron 302 in Phoenix, began each class session speaking about the Civil Air Patrol's history. He told the students how CAP was formed in 1941, and outlined the organization's three primary missions. Helm described the Cadet Program (personalizing it to the students) and the Aerospace Education program (making sure the teachers know about STEM kits and other support available to them from CAP), as well as Emergency Services.

Vargas said, "The next day, a student told me that he had never heard of the Civil Air Patrol, and was impressed by all the good work they do." He said that his fellow physics teachers were impressed as well. "I don't think they had any idea either about the CAP missions or its history," he said. "It was fun sharing that with them."

Myers is also a member of the Deer Valley Composite Squadron 302 where she is the unit's Public Affairs Officer, in addition to serving as the Arizona Wing PAO. She followed Helm's presentation with a real-world example of CAP's Emergency Services mission.

Just back from supporting the Hurricane Harvey mission in Texas last September, Myers explained how CAP works in conjunction with other disaster relief organizations. She gave a brief overview of FEMA's Incident Command System. She discussed how it provides a standard command structure during a disaster, allowing individuals who are trained to fill a certain role to function effectively, whether they are from a large fire department, a small sheriff's office, a National Guard unit, or an organization of professional volunteers such as the Civil Air Patrol or Red Cross.

As an example, Helm described how he flew a Hurricane Harvey sortie with a pilot from Georgia Wing and an aerial photographer from North Carolina Wing. He had never met either of them before they volunteered to form an aircrew in support of the mission. "Each of us knew what was expected of us, and we handled our responsibilities to get the mission flown and provide aerial photos of flooded areas," Helm said.

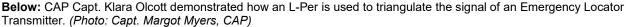
Olcott, a member of the 388th Composite Squadron in Glendale, Ariz., has been an active member of the Arizona Wing Ground Team for several years, having completed the Expert Ranger rating during her sixth time at Hawk Mountain Ranger School in 2017.

Olcott demonstrated an L-Per and talked about how Emergency Locator Transmitter searches are conducted. She also described the items she carries in her 24-hour Emergency Services Equipment pack as well as what she adds for a possible 72-hour ground team search. The students were fascinated as she pulled items from her pack: a reflective vest, a small sleeping bag, a first aid kit, a canteen, a signal mirror, and so on. They were even more impressed when Olcott told them that her Ranger training has prepared her to survive in the wilderness for 72 hours without any support other than what is in her pack.

Olcott was the highlight of the session, because she brought not only her experience but also what Vargas called "props." According to Vargas, one of the students commented, "That girl (Olcott) is really tough. I didn't know girls could do that."

Vargas said he looks forward to having CAP members present to physics classes again during next school year. "The presentation was absolutely relevant," he said. "What was covered was directly applicable to our lab and our project. What our students took away this week was that there is a 'purpose' for why we do what we do in physics, and that is a lot harder to teach than it sounds."

He said that his colleagues in other sciences and other disciplines asked about how they can get involved with CAP as well. "I know one of the things we learned that piqued our interest was the extensive resources for teachers," Vargas said. "I know my fellow teachers had no idea about what is available to them, especially [STEM] curriculum and an orientation flight. How cool is that?"







Top: New Mexico Wing Vice Commander-North Annette Peters pauses in silent reflection at the graves of her parents. (Photo: Maj. Dan Gabel, CAP)

#### New Mexico Squadrons Honor Veterans in Wreaths Across America

by Maj. Dan Gabel, CAP, New Mexico Wing

SANTA FE, N.M. - On Dec. 16, 2017, four New Mexico Wing squadrons, composed of 19 cadets and 12 senior members, participated in the 12th annual Wreaths Across America ceremony, held at Santa Fe National Cemetery. Participating Squadrons included Albuquerque Heights Composite Squadron, Los Alamos Composite Squadron, Santa Fe Composite Squadron and West Mesa Composite Squadron.

Several hundred spectators were on hand for the ceremony, conducted by Master of Ceremonies USN Chief Petty Officer Charles Grosvenor (Ret.), who is also a Senior Master Sergeant in the Civil Air Patrol, as well as Southwest Region's Command NCO.

Speakers included USAF Lt. Col. Alex Carothers (Ret.), who is acting president of the Gen. "Fig" Newton Chapter of the Tuskegee Airmen, Inc. He reminded the audience that despite the differences in our country, we are all Americans, and need to build relationships with others, so that freedom and liberty will be reinforced and our country strengthened.

Presentation and retrieval of the colors was done by a color guard composed of two Naval Junior ROTC members of the Santa Fe High School, and two cadets from the Santa Fe Composite Squadron.

At the conclusion of the ceremony, eighteen wreathes were placed on graves by CAP cadets. At each placement of a wreath by CAP, the detail stood at attention while the name and rank of the veteran was spoken aloud along with an expression of gratitude on behalf of the nation. Each placement ceremony concluded with a ceremonial salute.

For some members, the remembrance was personal. New Mexico Wing Vice Commander-North Lt. Col. Annette Peters honored her parents by laying a wreath at their graves and pausing in silent reflection.

Members of the public and other organizations placed additional wreaths.



**Top:** New Mexico Wing commander Col Mike Lee (background) recognizes for outstanding duty performance during the wing's OPSEVAL in August 2017, (L-R, foreground) Socorro Composite Squadron Commander Maj. Dennis Hunter, New Mexico Wing Logistics Officer Lt. Col. Shirley Kay, Albuquerque Heights Composite Squadron Commander Capt. Mary Fox, New Mexico Wing Director of Operations Maj. Walter Dutton, New Mexico Wing Director of Communications Maj. Glenn Mauger and Socorro Composite Squadron Public Affairs Officer Lt. Col. David Finley. (*Photo: Lt. Col. Jay T. Tourtel, CAP*)

# New Mexico Wing Members Honored for Outstanding OPSEVAL Performance

by Lt. Col. Jay T. Tourtel, CAP, New Mexico Wing

SOCORRO, N.M. – On Oct. 28, 2017, New Mexico Wing Commander Col. Mike Lee recognized those members who demonstrated outstanding performance during the wing's Operations Evaluation (OPSEVAL), held during Aug. 11-12, 2017.

The exercise, held every two years, is a graded evaluation by the U.S. Air Force, where the evaluation team rates the mission staff on simulated scenarios that required the mission staff to prioritize among their various objectives, plan their responses, and dispatch CAP aircrews and a ground team to perform time-critical functions.

The Air Force evaluators also added to the challenges by stipulating that the mission base had no cell phone service, diverting a plane to make an emergency landing, and having the mission staff deal with the simulated death of a key staff member.

The overall rating for the OPSEVAL was Effective, with four elements – Public Information Officer, Flight Line, Ground Team, and Aircrews – receiving the top rating of Outstanding.



**Top:** (L-R), retired Army Col. Mark Ochsenbein with Soldier's Wish; Cadets Brandon Lunsford Jr., Bailey Lunsford, and Bethany Wilson; and Col. Joe Cavett, CAP, who is holding his own Earhart Award, #9492, from his time as a cadet.

#### Three Oklahoma Wing Cadets Earn Prestigious Earhart Award

by 1st Lt. Brandon Lunsford, Sr, CAP, Oklahoma Wing

TULSA, Okla. – On December 16, 2017, Southwest Region Deputy Chief of Staff for Aerospace Education Col. Joe Cavett, assisted by U.S. Army Lt. Col. Mark Ochsenbein (Ret.), volunteer executive director of Soldier's Wish, presented Cadets Bailey Lunsford, Brandon Lunsford Jr., and Bethany Wilson with the Amelia Earhart Award, that carries promotion to the grade of Civil Air Patrol cadet captain.

"I am so proud of what this young man and these two young women have accomplished," Ochsenbein said. "I have seen their drive and their ambition first-hand, I expect big things from all three of them as they grow into adulthood."

Perhaps no name is as symbolic of aerospace achievement as Amelia Earhart. In 1928, she became the first woman pilot to cross the Atlantic by air. She disappeared in 1937 near Howland Island in the Pacific Ocean, while trying to circumnavigate the world in a twin-engine Lockheed Electra. Her disappearance is one of the greatest unsolved mysteries of the 20th century.

The second milestone of the Cadet Program is the Amelia Earhart Award, which is earned after completion of the first 11 achievements of the Cadet Program. In addition, the cadet must pass a comprehensive 100-question examination covering aerospace topics, leadership theory and staff duties. To highlight the significance of this accomplishment, counting these awards, only 17,948 cadets had earned the award since its inception in 1964.

All three cadets have volunteered with Ochsenbein, supporting veteran wishes through various events that the Starbase Composite Squadron has supported.

"I first heard about Soldier's Wish when Col. Ochsenbein came to visit our squadron last year," said Cadet Bailey Lunsford. "Hearing the stories of what these men and women had endured while serving our country, and then seeing their communities rally around them to meet their needs, really touched me. I just had to assist."

Bethany Wilson added, "Our entire squadron is behind Soldier's Wish. We do whatever we can to support Col. Ochsenbein in granting the wishes of our veterans."

"Assisting Soldier's Wish has been one of my greatest CAP experiences," said Cadet Brandon Lunsford, Jr. "It is always an honor to serve them."



**Top:** (L-R) Capt. Mary A. Fox, commander of Albuquerque Heights Composite Squadron; Capt. C. John Graham, public affairs officer of Santa Fe Composite Squadron (also accepting on behalf of the Los Alamos Composite Squadron); Cadet Tech. Sgt. Evan Custer of Eagle Cadet Squadron; and Lt. Col. William R. Fitzpatrick of LBJ Middle School Cadet Squadron receive their Quality Cadet Unit Award certificates from New Mexico Wing Commander Col. Mike Lee. (*Photo: Lt. Col. Jay T. Tourtel, CAP*)

# Five New Mexico Wing Squadrons Earn Quality Cadet Unit Award

by Lt. Col. Jay T. Tourtel, CAP, New Mexico Wing

SOCORRO, N.M. – On Oct. 28, 2017, at the New Mexico Wing Conference in Socorro, New Mexico Wing Commander Col. Mike Lee recognized five squadrons that earned a Civil Air Patrol's Quality Cadet Unit Award for the year ending Aug. 31, 2017. The five units recognized were the Eagle Cadet Squadron, Los Alamos Composite Squadron, Santa Fe Composite Squadron, Albuquerque Heights "Spirit" Composite Squadron and LBJ Middle School Squadron.

The Quality Cadet Unit Award is an objective measure of a unit's success, and is open to all cadet and composite squadrons, as well as flights with a minimum of 10 cadets. To qualify, units must meet at least 6 out of 10 criteria in the following areas: Cadet Achievement, Orientation Flights, Retention, Adult Leadership, Encampments, Growth, Aerospace, Enrollment, Outside Activities and Emergency Services. For a full description of specific criteria, please visit <a href="https://www.capmembers.com/cadet\_programs/library/quality-cadet-unit-award/">https://www.capmembers.com/cadet\_programs/library/quality-cadet-unit-award/</a>.

Among the specific objectives, units must have at least 35 cadets on their roster, show a growth rate of at least 10% (or 10 cadets) over the previous year, have at least three senior members who are graduates of CAP's Training Leaders of Cadets program, have at least 60% of their cadets complete orientation flights, at least 50% attend an encampment, and at least 40% earn Civil Air Patrol's Wright Brothers Award.

In praising the recipients, Lee said, "If you want to see quality units in the wing, this is what they look like."

# Arizona Wing Charters New Composite Squadron on Navajo Reservation

by Lt. Col. Luis A Camus, CAP, Arizona Wing

SHONTO, Ariz. – On Oct. 20, 2017, Civil Air Patrol National Headquarters chartered a new squadron in Arizona Wing. The Code Talker Bahe Ketchum Composite Squadron 211 is based in Shonto, Ariz., on the Navajo Reservation, and is commanded by 2nd Lt. Frederick Fout, a member of the U.S. Army Reserve and principal of Shonto Preparatory School, where the squadron meets.

Fout contacted the Arizona Wing about establishing the squadron, asking that it be named in honor of Bahe Ketchum, a Shonto native (*photo at right*) who was a World War II Marine veteran and also a Navajo Code Talker. As Mr. Ketchum is now deceased, his family granted permission to name the squadron after him.

The unit, that includes six senior members and 20 Native Americans cadets, is the only CAP squadron in the Navajo Nation, an area that stretches over more than 27,000 square miles across parts of Arizona, New Mexico, and Utah. This is one of the few CAP squadrons on an Indian reservation in the United States.



The Code Talkers were a group of Navajos recruited by the U.S. Marine Corps to help win World War II. Mr. Philip Johnston is credited with the idea of recruiting members of the Navajo Nation to develop an unbreakable code. The son of missionaries who ministered on the Navajo Reservation, Johnston spoke fluent Navajo. He convinced military commanders that the Navajo language answered their need for an undecipherable code of communication because Navajo is an unwritten language, and it is unintelligible to the ear of any untrained person outside the Navajo culture. It is unusually complex, as its syntax and tonal qualities, plus dialects, make it extremely challenging to learn. It has no alphabet or symbols, and it is spoken primarily on the Navajo Reservation. One estimate indicates that fewer than 30 non-Navajos could understand the language at the outbreak of World War II.

A Code Talker's primary responsibility was to transmit information about tactics and troop movements, orders, and other vital battlefield communications over telephones and radios. They also acted as messengers and performed general Marine Corps duties. Navajo Code Talkers were treated with the utmost respect by their fellow Marines. USMC Maj. Howard Connor, signal officer at Iwo Jima, said, "Were it not for the Navajos, the Marines would never have taken Iwo Jima."

When a Navajo Code Talker received a message, what he heard was a string of seemingly unrelated Navajo words. The Code Talker first had to translate each Navajo word into its English equivalent. Then, he used only the first letter of the English equivalent in spelling an English word. Thus, the Navajo words "wol-la-chee" (ant), "be-la-sana" (apple) and "tse-nill" (axe) all stood for the letter "A." One way to say the word "Navy" in Navajo code would be "tsah (needle) wol-la-chee (ant) ah-keh-di-glini (victor) tsah-ah-dzoh (yucca)."

Most letters had more than one Navajo word representing them. However, not all words had to be spelled out letter by letter. The developers of the original code assigned Navajo words to represent about 450 frequently used military terms that did not exist in the Navajo language. For example: "besh-lo" (iron fish) meant "submarine," "dah-he-tih-hi" (hummingbird) meant "fighter plane," and "debeh-li-zine" (black street) meant "squad."

The original 29 Navajo Code Talkers were honored with the Congressional Gold Medal in 2001.



**Top:** Cadet Lt. Col. Destiny Maurer receives CAP's Gen. Ira C. Eaker Award from New Mexico Wing Commander Col. Mike Lee. (*Photo: Lt. Col. Jay T. Tourtel, CAP*)

## New Mexico Wing Cadet Earns Gen. Ira C. Eaker Award

by Lt. Col. Jay T. Tourtel, CAP, New Mexico Wing

SOCORRO, N.M. – At the New Mexico Wing Conference Banquet on Oct. 28, 2017, Cadet Lt. Col. Destiny Maurer, a member of the LBJ Middle School Cadet Squadron, received her Civil Air Patrol's Gen. Ira C. Eaker Award Certificate from New Mexico Wing Commander Col. Mike Lee.

The Eaker Award represents completion of the fourth and final phase of CAP's four-phase cadet program. The award is named in honor of Gen. Ira C. Eaker, deputy commander of the Army Air Forces and Air Force Chief of Staff. It is the second-highest cadet award in Civil Air Patrol, earned by only 2% of all CAP cadets.

To earn the Eaker Award, cadets must complete all 16 achievements of CAP's Cadet Program. Additionally, they must write a 300 to 500-word essay and deliver a 5 to 7-minute speech on a leadership topic provided by National Headquarters; complete either the Cadet Officers School (COS) or Region Cadet Leadership School (RCLS); complete the Cadet Physical Fitness Test (CPFT); and serve as staff assistant to either the squadron leadership officer, aerospace education officer, operations officer, logistics officer or squadron commander.

Successful completion of the Eaker exam carries with it promotion to cadet lieutenant colonel, as well as credit for Squadron Leadership School and completion of Level II of CAP's Professional Development Program (grade of 1st Lieutenant), should the cadet transition into CAP's adult senior program at age 21.

Maurer has been a CAP member since May 2009. She is a member of the Wing Balloon Team chase crew, as well as chairman of the New Mexico Wing Cadet Advisory Council.



**Top:** CAP Maj. Ruben Kafenbaum of Deer Valley Composite Squadron 302 was one of 29 donors participating in a blood drive on Dec. 2, 2017, at Falcon Composite Squadron 305. The total number of units of blood donated for Arizona Wing's Operation Pulse Lift rose to 135 by the end of 2017. (*Photo: Capt. Margot Myers, CAP*)

### Arizona Wing's Operation Pulse Lift Provides Needed Blood Donations

by Lt. Col. Robert Ditch, CAP, Arizona Wing

MESA, Ariz. – On Dec. 2, 2017, the *Operation Pulse Lift* blood donation effort at CAP-sponsored donation sites in Arizona Wing came to a close, exceeding the 2017 goal of 100 units of blood by at least 35 units. Falcon Composite Squadron 305 Health and Medical Officer Maj. (Dr.) Larry Schappa and his team collected 29 units, in conjunction with the annual CAP Anniversary Picnic.

A total of 98 units of blood were acquired at four donation activities, three hosted by the Falcon Composite Squadron and one by the Scottsdale Senior Squadron. CAP members also donated another 37 units at non-CAP donation sites in Arizona.

Next year, squadrons across the state will be challenged to host donation sites. This is a new mission that is guaranteed to save lives.

American Red Cross workers said they were extremely pleased with the Falcon Composite Squadron's capabilities and support, adding that it is a perfect location for a blood-drawing center. As a result, the Red Cross now has listed the squadron's location at Falcon Field in Mesa as an Emergency Blood Drawing Center. Should there be an unannounced call-out for blood, such as in an emergency in the state, or if another donation center has to cancel at the last minute, the Red Cross will call on CAP to support them by providing a location for an Emergency Blood Draw.



**Top:** (L-R) The Los Alamos Composite Squadron CyberPatriot Team: (L-R) Senior Member Keith Morgan, Cadet Senior Airman Malcolm Olsen, Cadet Chief Master Sgt. Silas Morgan, and Cadet Airman Kyle Gentile. Not pictured: Senior Member Chris Olsen. (*Photo: Maj. Dan Gabel, CAP*)

#### Los Alamos Composite Squadron Fields CyberPatriot Team

by Maj. Dan Gabel, CAP, New Mexico Wing

LOS ALAMOS, N.M. –The Los Alamos Composite Squadron has fielded a team to compete in the National Youth Cyber Education Program, also known as CyberPatriot. The team consists of Cadet Chief Master Sgt. Silas Morgan, Cadet Senior Airman Malcolm Olsen, Cadet Airman Kyle Gentile, and Senior Members Chris Olsen and Keith Morgan, who serve as sponsors and mentors for the cadets.

Based on the National Youth Cyber Defense Program, CyberPatriot is open to both middle school and high school teams, which start out at the local level and can advance all the way to the national finals. Teams are tasked with managing the cyber network of a simulated small company. In the competition, teams are given a set of virtual images that represent operating systems. The teams need to find the cybersecurity vulnerabilities within these images, in order to protect and maintain critical services during a six-hour period.

On Nov. 4, 2017, the team participated in the first competition of the season. The cadets were given both a Windows 7 and a Linux system, and determined the problems and vulnerabilities that were embedded in each system. Additionally, they took an exam involving network issues. Additional competitions will be held in December and January, with qualifying teams advancing to state, regional and national competitions.



**Top:** On Nov. 4, 2017, Fisher and Prewitt taught a ground school for the Airborne Photograhy rating at the Million Air facility at Hobby Airport. (*Photos: Lt. Col. Mike Turoff, CAP*)

#### **Texas Wing Conducts Aircrew Training**

by Lt. Col. Mike Turoff, CAP, Texas Wing

HOUSTON – The Hobby Senior Squadron's Lt. Col. Mike Turoff and Baytown Senior Squadron's Lt. Col. Don Fisher and Maj. Greg Prewitt continue to offer ground school training in several aircrew tasks.

On Oct. 21, 2017, Turoff and Fisher hosted a Mission Scanner ground school at the Million Air facility at Hobby Airport. That class was attended by S.M. Jonathan Voss, 2nd Lt. Flaviou Grunewaldt, S.M. Wilda Callan, S.M. Donald Tindall, Capt. Ramon Echevarria, Maj. Raymond Hicks, Lt. Col. Joel Diaz, S.M. Kevin Seiler, Capt. Charles Kirk and 2nd Lt. Ramesh Tiwari.

Turoff also drove up to the Texas Wing's HQ for the weekend of Oct. 28 and offered a ground school class for the Mission Scanner rating for the host squadron. It was attended by 2nd Lt.

Randall Wilson, Lt. Col. William Crossland, 2nd Lt. Audrey Wilson, 2nd Lt. Melissa Griner, 2nd Lt. Mark Griner, Cadet Capt, Mathew Wilson, Cadet Airman Cesia Rangel and 1st Lt. Cynthia Schunior. On Sunday, Oct. 29, seven of the class members were taken for their first introductory ride for that rating in the squadron's Cessna 172.

On Saturday, Nov. 4, 2017, Fisher and Prewitt taught a ground school for the Airborne Photography rating at the Million Air facility at Hobby Airport (assisted and hosted by Turoff and Lt. Col. Raymond Hoctor). The following members in attendance were 2nd Lt. Mark Zeller, S.M. Jonathan Voss, S.M. Don Tindall, S.M. Mathew Kosmoski, Maj. Peter Passarelli, S.M. Kevin Seiler, 2nd Lt. Peter Rene, Maj. Wendi Lamphear, and Maj. Fred Emmons.

During the summer of 2017, Turoff, Fisher and Prewitt had taught during the Lone Star Emergency Services Academy (LESA) by hosting the Airborne Photography classes and the Mission Observer and Mission Pilot training classes that included multiple flights required to get credit for those Specialty Qualification Training Record tasks. They were assisted by several instructors in the Mission Aircrew School in order to complete both the classroom graded practical work and the aircraft exercises.

The team plans a Mission Observer Ground School at Hobby Airport on Jan. 20, 2018, with a follow-up Mission Pilot Ground School in the early spring, with more offerings in MS, MO, MP, UDF as well as hosting SLS, CLC and UCC in the coming year.

Below: On Oct. 28, 2017, students from the host squadron at the Texas Wing's Headquarters attended a ground school class





**Top:** (L-R) As New Mexico Wing commander Col. Mike Lee presides over the change of command ceremony, squadron Aerospace Education Officer 2nd Lt. Frank Lavolpa receives the squadron guidon from incoming squadron commander Maj. Stan Nelson, as outgoing commander Lt. Col. Thomas J. Clarke looks on. (*Photo: Courtesy of Ms. Meredith Cole*)

## New Mexico Wing Squadron's Change of Command

by Lt. Col. Jay T. Tourtel, CAP, New Mexico Wing

ROSWELL N.M. – On Oct. 16, 2017, in a ceremony presided over by New Mexico Wing Commander Col. Mike Lee, Lt. Col. Thomas J. Clarke stepped down as commander of Roswell Composite Squadron, and was succeeded by Maj. Stan Nelson,

Clarke has been a member of Civil Air Patrol since October 1985. He transferred to Roswell Composite Squadron from Alaska Wing in November 2006, and has served as the squadron's maintenance officer, supply officer, drug demand reduction officer, aerospace education officer and deputy commander for cadets. He served as squadron commander since September 2013. Since stepping down as commander, Clarke serves as advisor to the commander, logistics officer and maintenance officer.

Nelson has been a member of CAP and the squadron since November 2005. He has previously served as the squadron's deputy commander for seniors, communications officer and finance officer.

Following the ceremony, Col. Lee presented Clarke with a Commander's Commendation Award for his outstanding service to the squadron, the wing and Civil Air Patrol.



**Top:** Maj. Singluff (right) accepts command of the squadron from Wing Commander Col. Mike Lee. At left, outgoing Commander Maj. Glen Nicolet. (*Photos: Lt. Col. Maria-Lisa M. Dilda, CAP*)

### **New Mexico Wing Squadron Gets New Commander**

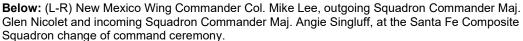
by Capt. C. John Graham, CAP, New Mexico Wing

SANTA FE, N.M. – On Nov. 7, 2017, in a ceremony conducted at the New Mexico National Guard Readiness Center, CAP Maj. Angie Singluff assumed command of the Santa Fe Composite Squadron. She succeeds CAP Maj. Glen Nicolet, who served as squadron commander since November 2013, and will continue to serve the squadron as deputy commander for seniors, squadron operations officer, and mission pilot.

Before moving to New Mexico in 2014, Singluff was an FAA regional aviation and space education coordinator. She was also a Civil Air Patrol member in Anchorage, Alaska, where she participated in over 15 missions searching for lost aircraft and people. Her goal for the squadron is, "For Santa Fe Composite Squadron to shine as a leader and role model within the New Mexico Wing, by having our members fully trained and willing to attract new cadets and senior members."

As part of the ceremony, New Mexico Wing Vice Commander-North Lt. Col. Annette Peters presented Maj. Nicolet with CAP's Commander's Commendation Award for his four years of leading the squadron. New Mexico Wing Commander Col. Mike Lee presented Squadron Safety Officer John Graham (who is also the squadron's public affairs officer) with the Southwest Region Safety Officer of the Year Award; Capt. Roger Tennant, with the New Mexico Wing Aerospace Education Officer of the Year Award; and Maj. Singluff, with the New Mexico Wing Professional Development Officer of the Year Award. Squadron Deputy Commander for Cadets John Gravel received the New Mexico Looney Family of the Year Award on behalf of his family, and Cadet Maj. Dakota Cisneros accepted the Cadet Safety Identity Award on behalf of the squadron.

The Santa Fe Composite Squadron, in existence since the 1940s, has a total of 25 senior members and cadets, and meets at the National Guard facility on the first Tuesday of every month.







**Top:** CAP Maj. Edwin Segura, (front row, third from left) joined other Community Emergency Response Team members to assist with the funeral of Capt. Wade Barter of the Daisy Mountain Fire Department. (*Photo: Paul Schickel, Daisy Mountain Fire Department's community services program coordinator.*)

# Sky Harbor Squadron Member Assists with Fire Captain's Funeral

by Staff Sgt. John Horne, CAP, Arizona Wing

PHOENIX – On Nov. 30, 2017, CAP Maj. Edwin Segura joined hundreds of first responders and emergency services personnel at the funeral of Daisy Mountain Fire Department Capt. Wade Barter. Segura, the deputy commander for seniors at Sky Harbor Composite Squadron 301, has worked with multiple Community Emergency Response Teams (CERTs) across the Phoenix area under a unified command center.

Barter was killed accidentally while on a hunting trip in Colorado earlier in the month. He was a veteran of the U.S. Navy, and had worked at the Daisy Mountain Fire Department for 17 years.

The CERT program is designed to orient volunteers on disaster preparedness for the hazards that may impact their area, and trains them on basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations.

The Daisy Mountain Fire Department asked for CERT representation at the funeral and Segura volunteered. He has been a Civil Air Patrol member for 10 years.



**Top:** (L-R) Squadron alerting officer Maj. Mark Peters looks on, as Cadet Commander Cadet 2nd Lt. Zach Lang passes the squadron flag to Flight Officer Hannah Morgan, who accepted the position of deputy commander for cadets, succeeding Lt. Col. Annette Peters. (*Photos: Maj. Dan Gabel, CAP*)

## New Mexico Squadron Gets New Deputy Commander for Cadets

by Maj. Dan Gabel, CAP, New Mexico Wing

LOS ALAMOS, N.M. – On Nov 6, 2017, in a special ceremony, Flight Officer Hannah Morgan accepted her new duties as deputy commander for cadets for the squadron. She succeeds Lt. Col. Annette Peters, had held the position for the past ten years and also serves as New Mexico Wing's vice commander-North. Morgan's parents, grandparents and siblings were present at the ceremony.

Peters has been a member of CAP since October 2001. She expressed her appreciation for the level of maturity and responsibility that has developed among the cadets in the squadron during her watch. In recognition of Peters' many years of service as deputy commander for cadets, the cadets presented her with flowers and a gift.

Morgan has been a member of CAP since September 2014, when she joined as a cadet. She transitioned into the senior program in September 2016, and was promoted to flight officer. She will be eligible for promotion to second lieutenant upon reaching age 21. She is working towards a degree in Airport Management, and hopes to become an airport manager. She is a licensed balloon pilot, and has crewed for many of the balloon ascensions at the Albuquerque International Balloon Fiesta.

Morgan brings enthusiasm and energy to her new responsibilities. She is looking forward to greater involvement with the cadets, as well as re-establishing the Color Guard Program within the squadron.



Top: Cadet Chief Master Sgt. Bryce Gentile receives his new insignia from his parents. (Photo: Maj. Dan Gabel, CAP)

### New Mexico Wing Cadet Promoted to Cadet Chief Master Sergeant

by Maj. Dan Gabel, CAP, New Mexico Wing

LOS ALAMOS, N.M. – On Nov. 6, 2017, at a promotion ceremony held at Los Alamos Airport, Bryce Gentile was promoted to cadet chief master sergeant at the weekly meeting of Los Alamos Composite Squadron.

Gentile has been a member of Civil Air Patrol and the squadron since November 2014. The grade of chief master sergeant is the highest enlisted grade a cadet can hold before progressing to cadet officer grades.

Gentile's new insignia was pinned on by his mother, Louise Foliot, and his father, Bill Gentile.

Gentile has a love for flying, and over the summer participated at the Civil Air Patrol National Flight Academy in Shawnee, Oklahoma. He plans to pursue a career as a pilot upon graduating from high school.

#### **Guest Editorial**

#### The Cadet Program at 75: A Former Cadet's Perspective

ALBUQUERQUE, N.M. – After a year-long celebration, the Civil Air Patrol Cadet Program turned 75 years old on Oct. 1, 2017. As a former cadet, I would like to offer my views on the Cadet Program – and the benefits it has to offer – before this celebration is over.

In 1968, at the age of 11, I joined the Boy Scouts, mainly because my father was a Scout, and I wanted to be like him. I lasted a year and a half there, and never made it past Second Class Scout. This is not to say that there was anything wrong with the Scouting program. In fact, Cadet Chief Master Sgt. John LeGalley, a distinguished cadet member of Albuquerque Heights Composite Squadron, recently became an Eagle Scout. For me, something was missing, and I just couldn't put my finger on it.

In October 1971, I was beginning my second year at Kaimuki Intermediate School in Honolulu, the Hawaiian equivalent of a middle school on the mainland. As a *haole* – the Hawaiian term for Caucasian – I was not readily accepted by the locals



there, who were mostly Hawaiians, Chinese, Japanese and Filipinos. I was seeking a sense of inclusion and belonging, and I found it in CAP. Some cadets visited the school, I was impressed by their uniforms, they explained what CAP was about, and from that point on I was hooked.

Reflecting on my decision to join CAP, I realized what had held me back in the Boy Scouts: my father was a Scout, and I didn't want him comparing his Scouting career to mine. I wanted to be my own person, and blaze my own trail. Now that my son is a cadet – with less than a year before he ages out of the Cadet Program – I am mindful of falling into the trap of comparing my CAP career to his. I have learned to value him as a cadet in his own right, and have become extremely proud of the young man he has become – due in large part to what he experienced in CAP.

I have also made friendships that have lasted a lifetime. I met several of my closest friends while we were CAP cadets. We've been there for each other in good times and bad, and words cannot describe the camaraderie we feel for each other.

The life skills I learned as a cadet have also stood me in good stead. From the time I was 14, I learned about leadership, management, self-discipline, group discipline, small unit leadership, time management, self-management and goal-setting. Although I had originally tried to get into the Air Force Academy – my academic record and physical condition were two disqualifying factors – I learned what it means to have a backup plan, and went on to get my associate's degree at New Mexico Military Institute. I also learned the value of perseverance when I passed the Spaatz Exam on my third and final try. I was a cadet colonel for six months, before I aged out and transitioned to senior membership (albeit somewhat reluctantly).

As we close this milestone year of the Cadet Program, I believe that the benefits of being a cadet are unparalleled. One can accomplish great things, make friendships that last a lifetime, and learn valuable skills that one will carry for the rest of one's life. And that alone is worth the price of admission.

Lt. Col. Jay T. Tourtel, CAP New Mexico Wing Public Affairs Officer The Fly-By, Southwest Re

# Guest Editorial On Veteran's Day

DALLAS – Over the years, in composing my annual Veteran's Day message, I have worked very hard not to embroil myself or my thoughts in the political rhetoric of the moment, because I have always believed that my message was intended to be important enough to transcend partisanship. This year, more than most, that perspective may be particularly challenging. I'll try to live up to that challenge.



No matter what opinion you may have about the current political environment in the United States, any objective observer will nonetheless be compelled to acknowledge that our country is one where the rule of law is paramount, and none of us is ever above it, not even our most senior political leaders. I invite you to consider other parts of the world where this not only simply isn't true, but where good and decent behavior is in fact no guarantee of any kind that the safety and security of oneself and one's family will be assured.

As it happens, this year we may find ourselves put to some serious tests as we weigh questions that embody the morality of balancing partisanship against the rule of law, and the demand that our leaders should live up to the highest standards of ethical behavior.

So be it. When I look back upon the history of my country I see that over time we always, eventually, seem to reach the right decisions. This gives me not only hope, but confidence. I am not in any way distressed by the politics of this particular moment. Whenever our amazing nation has needed to overcome, we have, and we will continue to do so.

In 1776, when our founders took their very first brave steps toward setting up a participative system of self-government, the very idea itself was revolutionary. It was so revolutionary, in fact, that a war was required in order to fulfill the vision of those early national leaders. The military force that gave us that victory also gave us our first generation of veterans, and in the intervening two and a half centuries our national leadership has found it necessary to call upon additional generations of men and women who would take the oath to support, protect, and defend. Some of them gave their blood, toil, tears, and sweat during times of peace, and others, in times of war, but all of them *gave*. Every veteran, then, has the right to take great pride in defending a government and way of life that has allowed America to prevail through the generations, and to eventually reach the right decisions. These decisions have given the world its strongest economy, and provided a beacon of light to the rest of the world to see what freedom really looks like.

And the honest truth is that sometimes freedom is messy, which brings us full circle. It doesn't really matter what I personally think of our current politics, because the decisions to be made don't belong to me.

Those decisions are what *We the People* will settle on, and history has shown us that, over time, *We the People* have done a fine job. So, messy or not, it is only through that blanket of freedom that more than two centuries of veterans have provided for us, that we still can continue to shine our beacon of freedom to the world.

In this month of November, where we have the trifecta of an election day, Veteran's Day, and Thanksgiving, I wish you the very best of all three. And in particular to veterans, I give you my humble and sincere thanks for having been the guarantors of the other two.

To you, Happy Veteran's Day, and Happy Thanksgiving. I have not forgotten your service. And I promise that I never will.

Lt. Col. Owen Younger, CAP
Texas Wing

#### On Language

#### The Triumph of Usage Over Meaning

AUSTIN, Texas – The major difference between linguists and philologists is that the former study how the language is being used without passing judgment on correctness, while the latter concern themselves with how the language is structured, its etymology, spelling and syntax. The problem with this is that linguists are largely responsible for writing dictionaries, while philologists simply concern themselves with language "correctness." Even in a land of traditional bent, linguists are always populists, while philologists are conservative keepers of the "old rules."

All modern languages are descended from an earlier one, and descent always means change. That change is ruled by usage, because the meaning assigned to words and their combinations is dependent on what those who use the language agree that it ought to be. In other words, linguists guide themselves by "linguistic mob rule." In the English language, the Oxford English Dictionary (the venerable OED) is the keeper of the language, charged with stemming the floodgate of change. Once a meaning has been accepted by the OED, it's here to stay, and the linguistic mob rule is free to keep changing it, in whichever direction chance will take it.

Let's take, for example, an everyday word, such as *omnibus*, directly taken from the Latin in identical spelling, in which it means "for all." Latin, of course, goes back a couple of millennia (linguists might like to say *millenniums* instead), but our current people-carrier was so named starting in 1832 – a word adopted presumably by people who were at least somewhat conversant with Latin. Enter the rule of ignorance: since *omni*- (derived from *omnis*, "all") means "many" in Latin, most people decided to shorten the word to simply *bus*, perhaps reasoning that "many" was redundant; this abbreviation happened in 1838, recording what may have been the shortest-lived word in the history of the English language. However, "bus" without the "omni" doesn't work in Latin at all, because "-bus" is the correct suffix for the dative case of *omnis* and, without "omni," "bus" cannot stand (from an etymological point of view).

If the above doesn't make sense to you, think of a simple English word, such as "plentiful," then unilaterally decide that since "plenty" and "full" seem to be somewhat related and perhaps even synonymous, you could chuck the "plenty" and keep the nicer, shorter, "ful." (Please keep in mind that, based on sound alone, "ful" and "full" are identical.) Now you can stun your friends by saying, "There's ful of it," and they'll be amazed at your new coinage (although it is doubtful that they would readily understand it, unless your first explain what you mean).

This sort of reasoning is not a fact, but a supposition of ours. So now we are in the 21st century, "bus" has been around for almost two centuries, and that makes it an old-timer, as words go. According to traditional spelling rules, this type of monosyllable ending in "s" requires a double "s" in the plural. For instance, "gas" is "gasses" in the plural, because "gases" ought to be pronounced "gay-sehs" and not "gah-sehs." But, by convention, in American English it only takes one "s." Therefore, the plural of "bus" is "buses" in the U.S., but "busses" in Britain. Naturally, we could spell it "busses" in America too, but the archaic "buss" (for "kiss") has been resurrected in contemporary colloquial American English, and that would make "busses" ambiguous and, therefore, unadvisable.

This is not the only bending of spelling rules that afflicts American English since, for example, in Britain they spell "theatre," "litre," "centre," "fibre" and the such. But since American diction turns that "-tre" into "-ter," our very own Noah Wesbster advocated the use of the ending "-ter" instead of the originally-proper "-tre." By the 1830s, he had been only partially successful, since some words, such as "ogre" and "acre" remained unchanged to this day.

Most of these "-tre" words came into English through the Old French, in which that suffix is pronounced with nearly no intervening vowel sound as a "T + (guttural) R" – a sort of gurgling that is foreign to English and, therefore, awkward to pronounce.

In the case of "theatre," it entered English from the Greek θέατρον [théatron], through the Latin theātrum, and through the Old French théâtre. Both the Latin and the Old French were

accentuated on the second syllable (*the-ā-trum* and *thé-â-tre*). However, for some reason, in English the stress falls on the first syllable. Now, comparing the English *theatre* with the American *theater* and the Spanish *teatro*, which one is closer to the original Greek *théatron* and Latin *theātrum*?

Was Noah Webster right? Linguistically, he probably was, because that is how Americans pronounced the words. However, from the standpoint of logical spelling, he was not, as all those British English words ending in "-tre" make the corresponding adjective with a "-tral" or "-trical" suffix (such as *spectral* and *theatrical*). Against expectations, they do the same in American English, to the eternal confusion and frustration of American students, who cannot understand why that "e" in the American suffix "-ter" has disappeared in the corresponding adjective. One thing is to drop an ending "e," but quite another to have an "e" in the middle of the word vanish outright. In the end, those young students find it easier to abandon logic and embrace rotelearning instead. In other words, "It is, because it is."

Then, there are some words that seem to have changed their meaning through the centuries, mostly by being used incorrectly or in a tangential sense, and the new meaning became so common that it became permanent. This is the case of "objective" vs. "subjective." Today, these mean "impartial" and "personal, idiosyncratic" respectively. But this was not always the case.

*Objective* – (From the Medieval Latin *objectivus*, "object.") Recorded use about 1610, originally in the philosophical sense of "considered in relation to its object" (opposite of "subjective"). But by 1855 it had come to mean "impersonal, unbiased."

Subjective – (From the Late Latin subjectivus, meaning "of the subject.") Original use about 1500, when it meant "characteristic of one who is submissive or obedient," (from subjectus) "lying under, below, bordering on," figuratively "subjected." By Early Modern English of the 1700s, it had become "existing, real," and by 1767 it had turned into "personal, idiosyncratic." From "of the subject" or "something concrete," it had been transformed into "something personal" or "oddity."

Given the above, should we read something written in the 1600s where the words *objective* and *subjective* are used, would we really understand what the author meant? Also, how many words would we understand in the modern sense, when now their meaning is far different from the author's intended original sense?

Reality check. Let us consider what was considered a well-rounded education. Until the late 19th century, a proper formal education included the study of both Classical Latin and Greek. Linguists generally agree that both Latin and Greek are at the root of all Indo-European languages, and both of these ancient languages share one characteristic: they are clear and concise. Because of these qualities, they are still understood today, 2,000 years later.

In Western Europe, the first universities in the Middle Ages taught all subjects in Latin, that was the unifying language of culture at that time. This was because Christian monasteries had preserved all knowledge during the so-called Dark Ages, the monks spoke Latin because that was the language of the Western Christian Church, and Latin had become the *lingua franca* of Western Europe.

Latin was of supreme importance as late as the mid-19th century. Showing to what extent the vernacular relied on Latin as its anchoring source, the 10th edition of the *Dictionary of the Castilian Language*, published by the Royal Academy of Spain in 1854, after each definition of nearly every word, also appends the Latin word or phrase that anchors that meaning to Latin. When the word is new and did not exist in Ancient Rome's times, there is no Latin explanation.

However, Latin is no longer the *lingua franca* of the Western world; English is. Some people think that this is progress.

Lt. Col. Arthur E. Woodgate, CAP SWR Director of Public Affairs



# The Safety Corner Cold Weather Operations Importance to Members

The challenges of winter flying can be summed up in four words: cold, ice, snow, and wind. Every day is a weather day after the first snowfalls of winter arrive in colder regions. Now a whole set of conditions, accompanied by a cryptic stream of abbreviations to describe them, shows

up in NOTAMs, regular and special surface weather reports, automatic terminal information service broadcasts, and verbally from the tower. After the season's first light dustings of snow give way to accumulating storms and snow-removal operations, pilots need to inform themselves continually about runway, taxiway, and ramp conditions. The information in this subject report will provide tips for successfully meeting the challenges of winter weather.

As always, feel free to call AOPA's Pilot Information Center at 800/USA-AOPA with questions.

#### Overview

This subject report provides information on winterizing your aircraft and operational tips for flying in cold weather. In addition, a large section is devoted to aircraft icing – everything from deicing systems to taxiing on an icy runway to avoiding ice along the way. Many articles on the various aspects of winter flying are included in the AOPA Archives section for your review.

#### **Technical Information**

#### Winterizing Your Aircraft

"It's getting really cold in my area now; is there a certain kind of oil that I should use in the wintertime?"

"What is the proper way to heat the engine on my airplane? The temperature outside is positively frigid here now."

"What should I use to get the ice off my airplane's wings? We've had icing conditions for more than a month here."

These are typical questions heard by the aviation technical specialists in AOPA's Pilot Information Center during the winter months. When the weather turns cold across much of the United States, flying takes on a whole different set of concerns for pilots. Following is a list of important things to consider when entering the winter months. Keep in mind that many of the procedures listed are either better done, or required to be done by a certified aircraft mechanic.

- Cover or Clear: If your aircraft is not hangared, make sure the wings and cowling are covered. Ice builds on the wings, resulting in inefficient airflow and longer takeoff runs. If you don't have covers for the wings, use a hand broom to brush off snow and ice. Cover the pitot tube and vents.
- Control Cables: Because of contraction and expansion caused by temperature changes, control cables should be properly adjusted to compensate for those changes. Your airframe and powerplant mechanic should check the tension and make any adjustments needed.

- Park toward the Sun: Park in the direction that the sun rises in the morning; it will help melt the snow and ice on the windshield.
- Preheat: For those who normally base their airplanes indoors, here's an inexpensive way to preheat. Wrap the cowling in heavy blankets, and place two or more mechanic's drop lights in the forward openings or stuff them into the open cowl flaps. A pair of 75-watt bulbs will keep the engine compartment 20 to 40 degrees F above ambient temperature, for very little money. Just be sure that the light isn't touching anything that might catch fire, and keep the area near the lights free of fuel and oil. Prime at least three times before starting the engine (check your aircraft's manual). Have a carbon monoxide detector, especially if you have a tightly sealed airplane.
- Wheelpants: Take off the airplane's wheelpants (if applicable). Ice and slush can collect under the pants and cause the wheels to lock up when you land.
- Engine Breather Tube: One of the hazards of winter operation is that the engine breather tube may freeze shut. This tube provides a vent for normal crankcase pressures that occur during engine operation. Simply clear the breather tube before and after each flight.
- **Oil:** Don't forget to change your oil! For oil weights, reference your POH or provided aircraft manual. Winter operations usually call for less viscous oil so that oil circulates more quickly after engine start.
- **Retime Magnetos:** Ignition timing can fall out of specifications after a few months' use. Improperly timed magnetos make starting harder and can lead to engine damage.
- Inspect cabin heat system: In aircraft equipped with heat exchangers that surround mufflers or other parts of the exhaust system, there is a danger of carbon monoxide seeping into the cabin. Remove heater shrouds, check for cracks in exhaust system and patch or replace questionable parts. Defective combustion heaters in twin-engine aircraft also can leak carbon monoxide into the cabin.
- Install heat retention devices: If recommended by the aircraft's manufacturer, install
  baffles and oil cooler covers when temperatures drop to specified levels. Once installed,
  remember to observe temperature limitations for the devices. Some manufacturers allow
  temporary operations with the devices installed in warm weather.
- **Check insulation:** Inspect insulation of all oil lines and hoses. Also check insulation of tanks in a dry sump system (external reservoir).
- Inspect hoses, hose-clamps, hydraulic fittings and seals: Check all hose lines, flexible tubing and seals for deterioration. Non-airframe and powerplant mechanics can replace prefabricated fuel lines and any hose connection except for hydraulic connections. Re-torque all damps and fittings to cold weather specifications.
- Add air to tires and struts: Cold temperatures cause pressure in tires and struts to decrease. If the seal in the oleo strut is deteriorated, the strut will not hold air pressure. The seal must be replaced by a mechanic.
- Test, clean and charge battery: Use a hydrometer to determine the battery's specific gravity, which is a measure of its state of charge. A fully charged battery should have a specific gravity of about 1.265 and can stand temperatures as low as -60 degrees F without danger of freezing. A healthy battery should need charging only after several weeks of disuse. Most automotive battery chargers can be used to charge an aircraft battery. Use low amperage over a long period of time. During the winter, perform the hydrometer test once a month and keep an eye on fluid levels. If the battery is two or more years old, it will probably need to be replaced.
- **Inspect deicing equipment:** Cycle the boot system once a week to prevent stiffening of the rubber, which can shorten boot life. Check deicing boots for cracks and cuts.

BFGoodrich, that makes rubber boot deicing systems, recommends semiannual applications of a compound called *Agemaster Number 1* to boots to slow the aging process of the rubber. Regular applications of a Goodrich product called *Icex* will enhance ice shedding by reducing the ability of ice to adhere to the boots

 Dress Carefully: Dress warmly; pack a snack bar for energy; keep a well-stocked survival equipment kit.

#### **Cold Weather Operations**

Many special aircraft operating procedures should be observed when flying in cold conditions. These procedures will help to increase safety, reliability, performance, and best of all, help decrease engine wear.

- **Block the Skis:** If you're flying on skis, put something such as a plastic garbage bag or blocks between the skis and the snow when the airplane is parked.
- Warming Up: Warm up the engine at 1,000 to 1,200 rpm unless it's necessary to reduce rpm to keep from exceeding the oil pressure redline. As the oil warms up, the rpm can be increased. Allow plenty of time for the engine to warm up. Don't consider taking off until the oil temperature has stabilized at least at the bottom of the green. Nor try to expedite the warming of the engine by closing the cowl flaps; airflow over the cylinders during ground operation is not sufficient that way, and you'll only end up with lukewarm oil and hot heads.
- Icing: Icing is a large topic, and is discussed below in this subject report, but major
  operational considerations will be listed here. When taxing, be aware of patches of ice.
  When flying en-route, avoid icing conditions by all means, and, if you pick up ice
  unexpectedly, exit icing conditions as soon as possible.
- Carb Heat: Some carbureted engines, like the O-470 in the Cessna 180 and 182, run markedly better if partial carburetor heat is applied during cruise flight in cold weather. A carburetor temperature gauge is necessary to practice this art, which consists of adding carb heat to maintain a 10-degree C / 50-degree F carb throat temperature.
- Brake Easy: Planning should include minimum brake usage when landing and when taxiing through snow. Since warm brakes melt any snow upon stopping, the snow will refreeze, locking the plane in position.
- Weather: Always get a complete weather briefing, and perhaps an update, before your
  proposed flight. Sounds like a no-brainer, but many pilots find themselves surprised by
  weather conditions they were not expecting. If you have trouble interpreting a text based
  report, don't hesitate to call a flight briefer at 800/WX-BRIEF (800/992-7433).
- **File a Flight Plan:** This is one of the most reliable, easiest, and cheapest means of insurance for any time of year. Just file a flight plan when you check the weather.
- **Fuel:** Bring lots of it more fuel equals more options. Be it climbing above clouds, or steering around a storm, you'll be glad to have it.
- Cell: Bring a cell phone.
- Cross Wind: A competent pilot will know and adjust his or her crosswind approach to final to the current conditions. A commonly-used rule of thumb is: cut your max crosswind component in half for a snowy runway, and cut it by 75% for ice landings. This will help prevent the aircraft from weathervaning into the wind.

#### **Icing**

We will start this section by discussing the different types of de-ice systems available. TKS ("the weeping wing") works by secreting a controlled amount of de-ice fluid on different parts of

the aircraft. Heated boots are typically used by larger aircraft, and use engine bleed air or electricity to heat parts of the airframe to melt ice. Finally, the pneumatic boots use engine bleed air to inflate bladders on various aircraft surfaces, thereby breaking off the ice. All of these systems serve a similar purpose – to keep the airframe ice-free – but each one does it differently. Some icing systems are certified for Flight into Known Icing (FIKI) while others are not.

A pilot should also be aware that there are two different types of icing – rime and clear. Rime icing is characterized by small super-cooled water droplets and develops as a thin white cover on leading edges. Clear is, as the name implies, clear. The super-cooled droplets of clear icing are larger and typically found in cumulus clouds. Keep in mind that these two icing types can mix to form what we call "mixed icing."

The bottom line on icing is: don't fly into know icing conditions, even if your aircraft is certified for it. There have been cases of aircraft that are certified for FIKI that crashed when icing exceeded the capability of their system. In-flight icing is an extreme circumstance that must be dealt with quickly in any aircraft, small or large. At the FIRST sign of icing, descend to an altitude with an above-freezing air temperature, or expedite a 180-degree turn. If icing is serious, or if you are unsure of your ability to properly handle the situation, contact ATC immediately. They can provide you with vectors and altitude changes.

When taxiing, look out for ice. Check the brakes before you do your run-up to be sure you can keep the aircraft from moving. Attempting to perform a run-up on ice can result in sliding out of control. Additionally, be sure to hold proper aileron deflection throughout your taxi. This will help prevent the tendency for your aircraft to weathervane into the wind.

The following is a list of precautions to help make your icy landing a safe one.

- If you encounter icing on approach to landing, start by turning off the autopilot. Autopilots
  can mask abnormal control feel and prevent you from detecting the onset of a stall or
  handling problem.
- Make sure all your ice-protection equipment is on. If you have de-ice boots, inflate them
  at the final approach fix (instrument approach) or key position (VFR approach), and then
  again on final if ice is still building.
- Avoid abrupt control movements. Make small pitch corrections and keep your bank angles very shallow. This gives you a greater margin against the stall. Remember, icedup airplanes stall at higher-than-published stall speeds.
- Fly the approach at a higher-than-normal airspeed.
- Don't extend flaps. Extending flaps can allow ice to form aft of the leading edges, and blanket the airflow over the horizontal stabilizer or stabilator.
- Be prepared for a stall or abrupt loss of lift. A conventional wing stall calls for adding power and lowering the nose.
- However, a tail plane stall, or stall of the elevator or stabilator, calls for a completely different recovery procedure. Most often preceded by a lightening of pitch feel, pitch oscillations, or an uncommanded lowering of the nose, tail plane stalls require that you pull aft on the control yoke and reduce power. That's because horizontal stabilizers and stabilators generate negative lift, which acts in a direction opposite to the wings' lift. High power settings, high airspeeds, and extended flaps all increase a tail plane's angle of attack. Raising the nose lowers the tail plane angle of attack, and breaks the stall.

(Information for this article courtesy of AOPA)

Lt. Col. John Kruger, CAP SWR Director of Safety

#### How the Southwest Region Public Affairs Awards Program Works

Starting with the October, 2017 issue of The Fly-By, Southwest Region Commander Col. Joe R. Smith decided to continue the January, 2013 directive of then Southwest Region Commander Col. Frank A. Buethe in that region will recognize contributions to The Fly-By as follows:

- 1. A SWR **CAP Achievement Award** for article publication on three different issues of The Fly-By. Multiple articles in the same issue will count as one.
- 2. A SWR **Commander's Commendation Award** for article publication on an additional six different issues. Multiple articles in the same issue will count as one.

Region will issue the certificate and send it to the winner's unit at the first available opportunity. The award certificate will be presented at the first available opportunity.

#### How to Make Submissions Suitable for Publication

Since The Fly-By is posted on the SWR website, it is an external communication. Therefore, as required by CAPR 190-1, Sec. 7.b.(7), articles must be written in Associated Press Style. If a submission that is not in AP Style is selected for publication, it will be edited to this standard. (NHQ/PA has been using AP Style for all external communications since 2005.)

AP Style is defined in the Associated Press Stylebook (available at <a href="www.ap.org">www.ap.org</a>). For a brief summary, please see "Associated Press Style in a Nutshell," overleaf.

"Article" is defined as a narrative that:

- Is written in AP Style:
- Answers the questions Who, What, When, Where, and Why, and preferably also How;
- Has one or more quotes from participants, with attribution;
- Has two or more digital photos attached (not embedded in the text), with appropriate
  cutlines (photo captions). An article submitted without digital photos that is selected for
  publication will count as a half-credit. For full credit, it must have accompanying photos.

#### General advice on writing a good article

- Get all the facts right, stick to the facts, and do not use hearsay or express opinion.
- Take good digital photos.
  - Do not use digital zoom, or else your photos will lack good focus and definition;
  - Take "action shots" of people doing something interesting that is material to the article; for each photo, identify the people on it by grade, name, and unit.
  - Make sure everyone is in the correct uniform and you identify all, as per above.
  - Note: Good photos are essential to add immediacy and flavor to the story.

#### • Get good quotes.

- Ask participants for their opinion;
- o Get full grade, name, position title and unit of assignment for each quote.
- o Get the individual's consent to publish the quote as recorded (read it back).
- Note: Getting quotes is how you get to express opinion, and get your readers to share the experience that you are writing about.

#### Write in good, idiomatic, unadorned English.

- Do not "pad" your sentences, such as saying "due to the fact that" when "because" will do;
- Avoid trite expressions, such as "it goes without saying" if it does, don't say it;
- Avoid colloquial expressions;
- Do not write in acronyms always define the first instance, such as "Federal Aviation Administration" before you use FAA;
- No nicknames unless famous, such as "Ike" for Pres. Dwight E. Eisenhower.

#### Associated Press Style in a Nutshell

Below are the most important rules to keep in mind when writing in AP Style

- Write the title in normal English-language capitalization. Never all in caps.
- · Add your byline below the article title
- Do not format the text in the article (only exceptions are: bullet comments and numbered paragraphs in a section that details a process or sequence).
- Do not indent the first line of a paragraph.
- · Use AP Style rules for punctuation.
- Single space the article. At the end of each paragraph, execute two end-of lines (Enter key).
- Do not introduce artificial paragraphing by hitting the Enter key at the end of each line in your article. Instead, let the text wrap naturally and tap two Enter keys at the end of the paragraph.
- Use only a single space after a period.
- Insert a dateline at the beginning of the article, following AP Style rules.
- Answer the 5Ws: Who, What, Where, When, Why + the honorary W: How. In writing a CAP article, you will always know the 5Ws.
- Write all dates in AP style.
- Do not use postal codes instead of state abbreviations (not OK but Okla., not NM but N.M.) but some states have no abbreviation, such as Texas.
- Write all military grades in AP Style.
- Write the article in the third person singular.
- Express no opinion.
- To express opinion, use one or more quotes of qualified sources always get the quoted person's permission to include the quote, unless it is a matter of record (printed article or recorded audio-visual). Get the quoted person's grade, name, job title and organization.
- Never self-quote.
- Identify all persons by grade or title, name, job title if material, and organization.
- Never refer to a young person as "kid."
- When a young person is a CAP cadet, never use "kid," "boy," "girl" or "child" but identify each one by grade, full name (or last name only never first name only), and unit of assignment.
- Never use "their" for the possessive of a singular subject, such as, "the cadet took their meal."
- Avoid the abbreviations i.e. and e.g. You may know what each one means, and the Latin words they represent, but most people confuse the two. Be clear. Write in English and leave Latin and non-English to scholars.
- Refer to CAP members by grade, name, duty position and unit of assignment. Never by first name.
- On second or subsequent references, use only the last name, except when there are two
  persons with the same last name, in which case the use of both first and last name is
  preferred (never just the first names).
- In the case of CAP or military commanders or higher ranking senior members, on second reference use the grade and last name.
- Do not use Lt. as a grade. Lt. is a mode of address. The correct grade may be 2nd Lt. or 1st Lt., but never Lt. The Navy is the only service that has the grade of Lt.
- Do not use exclamation marks, as doing so expresses opinion.
- Use simple declarative sentences.
- Avoid the passive voice.
- Remember the good rules of English grammar and syntax, and follow them.
- For best results, buy the latest copy of the Associated Press Stylebook, available at a modest cost at www.ap.org read it, study it, know it, and use it. ■